

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 85P04520	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP01/11633	International filing date (day/month/year) 08 October 2001 (08.10.01)	Priority date (day/month/year) 07 October 2000 (07.10.00)
International Patent Classification (IPC) or national classification and IPC G02B 27/01		
Applicant PHYSOPTICS OPTO-ELECTRONIC GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 April 2002 (24.04.02)	Date of completion of this report 09 January 2003 (09.01.2003)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP01/11633

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-93*, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages 1-44*, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the drawings:
 pages 1-10, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	3, 5-10, 17-22, 25-32, 39-44	YES
	Claims	1, 2, 4, 11-16, 23, 24, 33-38	NO
Inventive step (IS)	Claims	3, 5, 6, 8-10, 17-22, 25, 26, 28-32, 39-44	YES
	Claims	1, 2, 4, 7, 11-16, 23, 24, 27, 33-38	NO
Industrial applicability (IA)	Claims	1-44	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: US-A-6 008 781

D2: WO-A-98/13720

D3: US-A-5 973 781

1. Claims 1, 2, 4, 11 to 16, 23, 24 and 33 to 38 do not meet the requirements of PCT Article 33(2) since they are not novel.

- 1.1 D1 discloses an information system in which light impinges on the eye. It comprises a holographic element (72) mounted in front of the eye and a projection device (80, 82, 84, 132, etc.) which projects light into the eye via the holographic element. In the embodiment in Figure 4, there is also a so-called "eye-tracker" which, via an optical scanning device (150), detects the light impinging on the eye with a sensor (146). It is implicitly clear that the comments concerning the toric element (72) also apply to the similar toric element (152), i.e. it can take the form of a holographic element.

Therefore the features of independent Claims 1, 13, 23 and 35 have been disclosed and hence the claims are not novel.

1.2 D2 and D3 also support this objection:

D2 (page 7, lines 15 to 18; and page 13) discloses an information system with a holographic element and a projection arrangement and a method as per Claims 13 and 35;

D3 (column 2, line 47, to column 3, line 67) describes an information system in which light is deflected into the eye via a diffractive optical element and detected by a scanning arrangement. It is prejudicial to the novelty of Claims 1 and 23.

1.3 The features in dependent Claims 2, 4, 11, 12, 14 to 16, 24, 33, 34 and 36 to 38 are likewise described in D1. Therefore these claims lack novelty.

2. Inventive step (PCT Article 33(3))

2.1 D1 mentions infra-red lighting in conjunction with the projection and scanning system. Therefore the subject matter of the corresponding claims (7, 14 and 27) is obvious and requires no inventive input.

3. The [German] word "brechen" [literally "break"] is not a suitable technical expression for describing the action of a hologram since it describes the deflection of light beams at surfaces with a shift in refractive index. The correct term "beugen" ["diffraction"] or an expression with a similar meaning, but which should be disclosed, would be suitable.

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4. In light of the above prior art, no common inventive concept pursuant to PCT Rule 13.1 is discernible. However, it does not appear reasonable to raise an objection with the claims in their current state.